

=> FIL STNGUIDE

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STRUCTURE FILE UPDATES: 17 MAR 2004 HIGHEST RN 664302-53-8  
DICTIONARY FILE UPDATES: 17 MAR 2004 HIGHEST RN 664302-53-8

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=> file zcaplus

FILE 'ZCAPLUS' ENTERED AT 13:41:42 ON 18 MAR 2004  
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FILE COVERS 1907 - 18 Mar 2004 VOL 140 ISS 12  
FILE LAST UPDATED: 17 Mar 2004 (20040317/ED)

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=> FIL HCAPLUS

FILE 'HCAPLUS' ENTERED AT 13:41:46 ON 18 MAR 2004  
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FILE COVERS 1907 - 18 Mar 2004 VOL 140 ISS 12  
FILE LAST UPDATED: 17 Mar 2004 (20040317/ED)

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L42 130718 SEA FILE=HCAPLUS ABB=ON PLU=ON (INSECT OR INSECTS OR  
INSECTICID? OR PEST OR PESTS OR PESTICID?)/CW  
L51 665905 SEA FILE=HCAPLUS ABB=ON PLU=ON ?SILICIC ACID? OR ?SILICA?  
L52 2907 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 AND L51  
L53 2319 SEA FILE=HCAPLUS ABB=ON PLU=ON L52 AND PY<1999  
L66 87 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((?LITHIUM? OR  
?SODIUM? OR ?POTASSIUM? OR ?RUBIDIUM? OR ?CESIUM? OR ?FRANCIUM?  
OR ?BERYLLIUM? OR ?MAGNESIUM? OR ?CALCIUM? OR ?STRONTIUM? OR  
?BARIUM? OR ?RADIUM?) (L) (SILICATE OR SILICIC ACID))  
L67 45 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((ALKALI OR ALKALINE  
OR GROUP 1 OR GROUP 1A OR GROUP I OR GROUP IA OR GROUP 2 OR  
GROUP 2A OR GROUP II OR GROUP IIA) (L) (SILICATE OR SILICIC  
ACID))  
L68 222 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((LI OR NA OR K OR RB  
OR CS OR FR OR BE OR MG OR CA OR SR OR BA OR RA) (L) (SILICATE  
OR SILICIC ACID))  
L69 273 SEA FILE=HCAPLUS ABB=ON PLU=ON (L66 OR L67 OR L68)  
L70 26 SEA FILE=HCAPLUS ABB=ON PLU=ON L69 AND ?KAOLIN?

=> d que 171

L42 130718 SEA FILE=HCAPLUS ABB=ON PLU=ON (INSECT OR INSECTS OR  
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L51 665905 SEA FILE=HCAPLUS ABB=ON PLU=ON ?SILICIC ACID? OR ?SILICA?  
L52 2907 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 AND L51  
L53 2319 SEA FILE=HCAPLUS ABB=ON PLU=ON L52 AND PY<1999  
L66 87 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((?LITHIUM? OR  
?SODIUM? OR ?POTASSIUM? OR ?RUBIDIUM? OR ?CESIUM? OR ?FRANCIUM?  
OR ?BERYLLIUM? OR ?MAGNESIUM? OR ?CALCIUM? OR ?STRONTIUM? OR  
?BARIUM? OR ?RADIUM?) (L) (SILICATE OR SILICIC ACID))  
L67 45 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((ALKALI OR ALKALINE  
OR GROUP 1 OR GROUP 1A OR GROUP I OR GROUP IA OR GROUP 2 OR  
GROUP 2A OR GROUP II OR GROUP IIA) (L) (SILICATE OR SILICIC

ACID))  
L68 222 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((LI OR NA OR K OR RB  
OR CS OR FR OR BE OR MG OR CA OR SR OR BA OR RA) (L) (SILICATE  
OR SILICIC ACID))  
L69 273 SEA FILE=HCAPLUS ABB=ON PLU=ON (L66 OR L67 OR L68)  
L71 49 SEA FILE=HCAPLUS ABB=ON PLU=ON L69 AND ?CARRIER?

=> d que 172

L42 130718 SEA FILE=HCAPLUS ABB=ON PLU=ON (INSECT OR INSECTS OR  
INSECTICID? OR PEST OR PESTS OR PESTICID?)/CW  
L51 665905 SEA FILE=HCAPLUS ABB=ON PLU=ON ?SILICIC ACID? OR ?SILICA?  
L52 2907 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 AND L51  
L53 2319 SEA FILE=HCAPLUS ABB=ON PLU=ON L52 AND PY<1999  
L66 87 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((?LITHIUM? OR  
?SODIUM? OR ?POTASSIUM? OR ?RUBIDIUM? OR ?CESIUM? OR ?FRANCIUM?  
OR ?BERYLLIUM? OR ?MAGNESIUM? OR ?CALCIUM? OR ?STRONTIUM? OR  
?BARIUM? OR ?RADIUM?) (L) (SILICATE OR SILICIC ACID))  
L67 45 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((ALKALI OR ALKALINE  
OR GROUP 1 OR GROUP 1A OR GROUP I OR GROUP IA OR GROUP 2 OR  
GROUP 2A OR GROUP II OR GROUP IIA) (L) (SILICATE OR SILICIC  
ACID))  
L68 222 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((LI OR NA OR K OR RB  
OR CS OR FR OR BE OR MG OR CA OR SR OR BA OR RA) (L) (SILICATE  
OR SILICIC ACID))  
L69 273 SEA FILE=HCAPLUS ABB=ON PLU=ON (L66 OR L67 OR L68)  
L72 28 SEA FILE=HCAPLUS ABB=ON PLU=ON L69 AND CLAY

=> d que 176

L38 1 SEA FILE=REGISTRY ABB=ON PLU=ON CHLORFENAPYR/CN  
L39 40 SEA FILE=REGISTRY ABB=ON PLU=ON CHLORFENAPYR/CNS  
L73 262 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 OR L39  
L75 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L73 AND (?SILICA? OR ?SILICIC?  
)  
L76 0 SEA FILE=HCAPLUS ABB=ON PLU=ON L75 AND PY<1999

*combined hits minus records deemed ~~it~~ irrelevant*

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YOU HAVE REQUESTED DATA FROM 36 ANSWERS - CONTINUE? Y/(N):y

L79 ANSWER 1 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:509058 HCAPLUS

DOCUMENT NUMBER: 127:157973

TITLE: Solid pesticide preparations with improved  
spreadability on water surfaces

INVENTOR(S): Yagyu, Norihide; Kokuritsu, Tomoyuki; Sato, Yasunori;  
Yonemura, Shinji

PATENT ASSIGNEE(S): Hokko Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09194302	A2	19970729	JP 1996-21683	19960116 <--
JP 2970865	B2	19991102		

## PRIORITY APPLN. INFO.:

JP 1996-21683

19960116

AB The prepns. contain (A) pesticides, (B) slightly water-soluble or water-insol. solvents selected from fatty acid esters, mineral-based hydrocarbon oils, or synthetic nondrying oils which have b.p.  $\geq 150^\circ$  and show sp. gr.  $\leq 1$  when mixed with pesticides, (C) nonionic surfactants (HLB  $\geq 8$ ), (D) water-soluble polymers, and (E) mineral powders. The prepns. float and spread well on water surfaces to exhibit high pesticidal effects. Granules containing O-Et O-(N-methoxyacetimidoyl) phenylthionophosphonate 2.0, liquid paraffin 10.0, polyoxyethylene styrylphenyl ether (HLB 10.0) 0.2, starch hydrolyzate 10.0, **clay** 67.3, **silicic acid** 10.0, and **Na** lauryl sulfate 0.5 weight% totally controlled Laodelphax striatellus even 7 days later.

L79 ANSWER 2 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:100901 HCAPLUS

DOCUMENT NUMBER: 124:138658

TITLE: Agrochemical granules containing **calcium silicate** hydrates, surfactants, and mineral-based **carriers**

INVENTOR(S): Zen, Shigekazu; Ishimoto, Yasuhiko; Katayama, Yasuyuki; Imai, Masayoshi

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07309702	A2	19951128	JP 1994-102863	19940517 <--

PRIORITY APPLN. INFO.: JP 1994-102863 19940517

AB Agrochem. granules contain (a) hydrophobic agrochems., i.e. pesticides or plant growth regulators, dissolved in hydrophobic solvents, (b) **Ca silicate** hydrates showing  $\text{SiO}_2/\text{CaO} \geq 1.5$  (by mol), (c) surfactants, and (d) mineral-based **carriers**. The granules show high hardness (resistance to disintegration during transportation) and are rapidly disintegrated in  $\text{H}_2\text{O}$ .  $\alpha$ -Cyano-3-phenoxybenzyl 2,2,3,3-tetramethylcyclopropanecarboxylate 10, Hisol SAS 296 20, Morwet D 425 25, Morwet EFW 2, Florite R 10, and **kaolin clay** 33 weight parts were made into granules, which were disintegrated by 60 g load/granule in a loading test, vs. by 10 g load/granule, for controls containing Hi-Sil 233 (**silica**) instead of Florite R.

L79 ANSWER 3 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:2315 HCAPLUS

DOCUMENT NUMBER: 116:2315

TITLE: Pesticide application to building materials

INVENTOR(S): Hotta, Hiroshi; Nagata, Kenji

PATENT ASSIGNEE(S): Shinto Paint Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 03112902      A2      19910514      JP 1989-251471      19890927 <--  
JP 06099243      B4      19941207

## PRIORITY APPLN. INFO.:

JP 1989-251471      19890927

AB Microcapsules contain pesticidal active ingredient (e.g. chlorpyrifos, fenitrothion), inorg. resin liquid, and mineral **carrier**, for treatment of lumber and soil surfaces to inhibit pest growth, such as fungi, bacteria, and insects (e.g. termite). A preparation contained inorg. resin (100 parts) consisting of **potassium silicate** 50, hardening agent aluminum **silicate** 30, CaCl<sub>2</sub> 10, and H<sub>3</sub>CO<sub>3</sub> 10%, a polyamide microcapsule 5 parts containing 20% chlorpyrifos, and 5 parts polyurethane containing 10% IF-1000. The preparation was applied to the soil of building foundation to control termite and mold.

L79 ANSWER 4 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:201798 HCAPLUS

DOCUMENT NUMBER: 114:201798

TITLE: Sustained-release insecticidal granules.

INVENTOR(S): Suzuki, Shoji; Matsumoto, Naoki; Wada, Muneo

PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03007202	A2	19910114	JP 1990-52368	19900302 <--
JP 3077155	B2	20000814		

## PRIORITY APPLN. INFO.:

JP 1989-51081      A1 19890303

AB Sustained-release granules are manufactured by coating oil sorption-free granular **carriers** with solns. containing H<sub>2</sub>O-soluble adhesives and H<sub>2</sub>O-insol. adhesives and overcoating with fine powders containing insecticides. Siliceous sand was coated with aqueous solution containing poly(vinylpyrrolidone) and poly(vinyl acetate), overcoated with fine powders containing carbosulfan, epoxidized soybean oil, diethylene glycol, **Na** ligninsulfonate, and **Ca silicate**, and mixed with colorant to manufacture insecticidal granules, which released 5, 20, and 38% carbosulfan in H<sub>2</sub>O at 15° 10 min, 6 h, and 48 h later, vs. 89, 90, and 100%, without poly(vinyl acetate), resp.

L79 ANSWER 5 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1989:548919 HCAPLUS

DOCUMENT NUMBER: 111:148919

TITLE: Salt-stabilized solid pesticidal preparations

INVENTOR(S): Katayama, Yasuyuki; Horide, Fumio

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8806842	A1	19880922	WO 1988-JP252	19880310 <--

W: JP  
RW: FR, GB, NL  
EP 304492 A1 19890301 EP 1988-902538 19880310 <--  
EP 304492 B1 19941207  
R: FR, GB, NL  
JP 2548981 B2 19961030 JP 1988-502468 19880310 <--  
JP 08231322 A2 19960910 JP 1996-57368 19960314 <--  
JP 2647071 B2 19970827

PRIORITY APPLN. INFO.: JP 1987-59164 19870313  
AB Solid particles are prepared consisting of (1) synthetic pyrethroid benzyl esters having cyano groups at the  $\alpha$ -position, (2) organophosphoric acid esters, (3) mineral **carriers**, and (4) at least one alkali or alkaline earth metal weak acid salt.  $\alpha$ -Cyano-3-phenoxybenzyl 2-(4-chlorophenyl)-3-methylbutylate 3, O,O-di-Me S-(1,2-dicarboethoxy)ethylphosphorodithioate 30, Sorpol-5060 5, Tokuseal GU-N (white carbon) 30, CaCO<sub>3</sub> 5, and a **kaolinite clay** to 100 parts by weight were mixed and pulverized to give a wettable preparation

L79 ANSWER 6 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1988:2178 HCAPLUS  
DOCUMENT NUMBER: 108:2178  
TITLE: Controlled-release systems containing inorganic microcapsules.  
INVENTOR(S): Teraoka, Ryuji  
PATENT ASSIGNEE(S): Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62201156	A2	19870904	JP 1986-44391	19860228 <--

PRIORITY APPLN. INFO.: JP 1986-44391 19860228  
AB A mixture of microcapsules, containing a controlled-release substance, and a binder is impregnated into a gas-permeable **carrier** material. A composition containing **Na silicate**, a bactericide (not specified), sorbitan monolaurate, and cyclohexane was homogenized and added to NH<sub>4</sub>HCO<sub>3</sub>. The mixture was stirred. The particle slurry was adjusted to pH 5-6 with malic acid to give bactericide-containing **silica** microcapsules (10-50  $\mu$ m). These were mixed with styrene-butadiene rubber, using benzene as solvent. The mixture was applied onto the surface of a synthetic resin unwoven cloth. No biol. examples are given.

L79 ANSWER 7 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1987:115274 HCAPLUS  
DOCUMENT NUMBER: 106:115274  
TITLE: Fragrant solid insecticide  
INVENTOR(S): Asase, Susumu; Takahashi, Tatsuji  
PATENT ASSIGNEE(S): Hasegawa, T., Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61233603	A2	19861017	JP 1986-88220	19860418 <--
JP 62054761	B4	19871117		

PRIORITY APPLN. INFO.: JP 1986-88220 19860418

AB A volatile liquid fragrance is impregnated into a composition containing **Ca silicate carrier** and subliming insecticide powder to give a fragrant solid insecticide. Thus, jasmine perfume 12, **Ca silicate** 3, and p-dichlorobenzene 85 g were dry-mixed and made into tablets.

L79 ANSWER 8 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1986:143995 HCAPLUS

DOCUMENT NUMBER: 104:143995

TITLE: Agrochemical **carriers**

INVENTOR(S): Iriko, Kazuo; Tamura, Komei; Edakawa, Setsuji

PATENT ASSIGNEE(S): Toyo Denka Kogyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60222402	A2	19851107	JP 1984-76438	19840418 <--

PRIORITY APPLN. INFO.: JP 1984-76438 19840418

AB Microcryst.  $\text{CaCO}_3$ -**silicate** complexes with a sp. surface of >60  $\text{m}^2/\text{g}$  and an oil absorbency of >70 mL/100 g are agrochem. **carriers**. The product stabilizes the agrochems. and increases their shelf-life. Thus, a composition containing di-Et 2-isopropyl-4-methyl-6-pyrimidinylphosphorothioate (I) 30 and microcryst.  $\text{CaCO}_3$ -**silicate** complex (sp. surface 98  $\text{m}^2/\text{g}$ ; oil absorbency 90 mL/100 g) was kept at 50° for 6 mo. The remaining I was 96.5%.

L79 ANSWER 9 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1986:136080 HCAPLUS

DOCUMENT NUMBER: 104:136080

TITLE: Preparation of **silica** fine powder as

**carrier** for pharmaceuticals and pesticides

INVENTOR(S): Uno, Ikuo; Maeda, Kyuzo; Nishiyama, Takashi

PATENT ASSIGNEE(S): Shionogi and Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60226826	A2	19851112	JP 1984-84818	19840425 <--

PRIORITY APPLN. INFO.: JP 1984-84818 19840425

AB A fine powder of **silica** containing <0.35%  $\text{Al}_2\text{O}_3$  contaminant is a suitable **carrier** for pharmaceuticals or pesticides. The active agents are stabilized in the **carrier**. A procedure is described for the elimination of the contaminant  $\text{Al}_2\text{O}_3$  from com. **Na silicate** and for the preparation of a fine powder of **silica**.

L79 ANSWER 10 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1985:608952 HCAPLUS  
DOCUMENT NUMBER: 103:208952  
TITLE: Floating agrochemical **carriers**  
INVENTOR(S): Sekiguchi, Mikio; Takahashi, Iwao; Sakai, Shinichi;  
Masui, Akio; Kojima, Toshikatsu  
PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60142901	A2	19850729	JP 1983-247350	19831228 <--
JP 63030281	B4	19880617		

PRIORITY APPLN. INFO.: JP 1983-247350 19831228  
AB A composition consisting of water-soluble **carrier** powders and, optionally, granules, organic or inorg. film-forming compds. having a lower solubility than that of the water-soluble **carriers**, and active agrochems., is a floating composition for controlling water weeds and pests. Thus, a composition containing diazinon [333-41-5] 5, **Na silicate** 3, anhydrous Na<sub>2</sub>SO<sub>4</sub> 92, and water 8 parts was granulated (12-32 mesh). The product controlled the water-surface insects Echinocnemis squameus and Laodelphax striatellus or rice more efficiently than a conventional granular submerged insecticide.

L79 ANSWER 11 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1985:115968 HCAPLUS  
DOCUMENT NUMBER: 102:115968  
TITLE: Volatile composition  
PATENT ASSIGNEE(S): Enkler Business K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59193979	A2	19841102	JP 1983-68211	19830418 <--

PRIORITY APPLN. INFO.: JP 1983-68211 19830418  
AB The composition is prepared by adding an aqueous liquid containing the volatile component to a mixture of calcined gypsum and H<sub>2</sub>O-captive inorg. or organic compound, then solidifying. The method is especially useful in confining insecticides, deodorants, and rust inhibitors in a slow-release medium. Thus, 80 parts calcined gypsum and 20 parts Florite (**Ca silicate**) were blended, mixed with aqueous solution of Biotalk (stabilized ClO<sub>2</sub>), then the mixture was solidified. The volatile component vaporized gradually.

L79 ANSWER 12 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1980:527157 HCAPLUS  
DOCUMENT NUMBER: 93:127157  
TITLE: **Silicic acid** powder as



agrochemical **carrier**  
 PATENT ASSIGNEE(S): Tokuyama Soda Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55085502	A2	19800627	JP 1978-158635	19781225 <--
JP 61008802	B4	19860318		
JP 62188968	A2	19870818	JP 1986-303788	19861222 <--
JP 01037691	B4	19890809		

PRIORITY APPLN. INFO.: JP 1978-158635 19781225

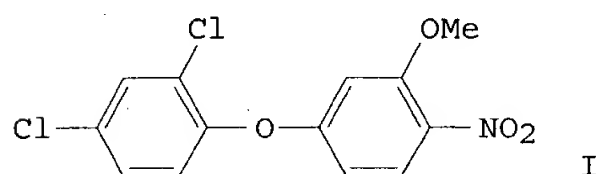
AB **Silicic acid** derivs. powder having fine pores of <150 Å diameter is a caking-free agrochem. **carrier**. Thus, porous **Na silicate** [6834-92-0] powder having a volume of fine pores (50-150 Å diameter) of 1.1 mL adsorbed 2.2 mL BPMC [3766-81-2] dissolved in lubricating oil. The product was fluid and no caking was observed after storage.

L79 ANSWER 13 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1978:116356 HCAPLUS  
 DOCUMENT NUMBER: 88:116356  
 TITLE: Solubility improvement of pesticides  
 INVENTOR(S): Hattori, Takahiro; Okada, Takao; Shimado, Toshihiko;  
 Fujita, Tsunekazu  
 PATENT ASSIGNEE(S): Ishihara Sangyo Kaisha, Ltd., Japan  
 SOURCE: Jpn. Tokkyo Koho, 5 pp.  
 CODEN: JAXXAD  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 52047016	B4	19771129	JP 1974-55175	19740517 <--
JP 50154430	A2	19751212		

PRIORITY APPLN. INFO.: JP 1974-55175 19740517  
 GI



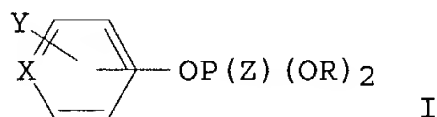
AB The solubility of pesticides in formulations containing granular **carriers** is increased by addition of carbonates or **silicates**. Thus, postemergence application of a granular composition containing chlomethoxynil  
 (I) [32861-85-1] and **Na metasilicate** [6834-92-0] at 300

g/are effectively controlled *Echinochloa crus-galli* (99.3%) compared to control without **silicate** (65.4%).

L79 ANSWER 14 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1976:404526 HCAPLUS  
 DOCUMENT NUMBER: 85:4526  
 TITLE: Granulated fertilizer with insecticidal action  
 INVENTOR(S): Aries, Robert  
 PATENT ASSIGNEE(S): Fr.  
 SOURCE: Fr. Demande, 10 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2272051	A1	19751219	FR 1974-17723	19740521 <--
FR 2272051	B3	19770318		

PRIORITY APPLN. INFO.: FR 1974-17723 19740521  
 GI



AB A granulated N-P or N-P-K fertilizer is coated with an organic P-containing insecticide of general formula I, where R=Et or Me, X=N or CH, Y = Cl, Br, or CF<sub>3</sub> and Z=S or O. The insecticides used for coating were: bromophos [2104-96-3], chlorpyrifos [2921-88-2], fenchlorphos [299-84-3], dichlorfenthion [97-17-6], and fospirate [5598-52-7]. Polyalkylene, polyethylene, polypropylene glycols, **kaolin**, talc, and **silicates** were used as ~~adjuvants~~. Thus, a 15-15-15 N-P-K fertilizer (46) was coated with dichlorfenthion (2.5) and SiO<sub>2</sub> powder (1.5 kg); the product contained 5% insecticides.

L79 ANSWER 15 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1973:428194 HCAPLUS  
 DOCUMENT NUMBER: 79:28194  
 TITLE: Adsorbents containing **silicic acid** and metal **silicates** as carriers for plant protectives  
 AUTHOR(S): Almassy, Gyula; Antal, Janos; Bohanszky, Mrs. Laszlo; Dienes, Lajos  
 CORPORATE SOURCE: Budapesti Vegyimuek, Budapest, Hung.  
 SOURCE: Magyar Kemikusok Lapja (1973), 28(2), 83-9  
 CODEN: MGKLAL; ISSN: 0025-0163  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: Hungarian

AB A review with 58 refs. on metal **silicate**, **silica** [7631-86-9] and expanded perlite as adsorbents for pesticide formulations. Preparation and testing methods are discussed. Perlite is not suitable for pesticidal dust formulations, but could **be** used for the formulation of soil decontaminants.

L79 ANSWER 16 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1973:107018 HCAPLUS  
DOCUMENT NUMBER: 78:107018  
TITLE: Granular pesticides  
PATENT ASSIGNEE(S): Stauffer Chemical Co.  
SOURCE: Brit., 3 pp.  
CODEN: BRXXAA  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1305320	A	19730131	GB 1971-28168	19710616 <--
AU <del>7131553</del>	A1	19730125	AU 1971-31553	19710722 <--

PRIORITY APPLN. INFO.: US 1970-57776 19700723

AB Granular pesticides are prepared by spraying relatively nonadsorbent particles into the pesticidal solution, followed by backdrying with a finely divided, highly adsorbent powder, such as **Ca silicate**, and by repeating the process until the granules are formed with the requisite amount of pesticide around the nonadsorbent **carrier**. Thus, 86.5 g CaCO<sub>3</sub> chips are treated with 1/3 of a solution of 5 g N-(mercaptomethyl)phthalimide-S-(O,O-dimethylphosphorodithioate) [732-11-6] in 4 g heavy aromatic naphtha and 1 g of a tall oil fatty acid, followed by the addition of 1 g **Ca silicate**. The remaining 2/3 of the solution were added in 2 portions, together with 1 g **Ca silicate** each, to give a free-flowing granular product.

L79 ANSWER 17 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1973:39358 HCAPLUS  
DOCUMENT NUMBER: 78:39358  
TITLE: Granules comprising inert cores coated with an absorbent powder  
INVENTOR(S): Taylor, Geoffrey Gordon  
PATENT ASSIGNEE(S): Fruitgrowers Chemical Co. Ltd.  
SOURCE: U.S., 4 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3672945	A	19720627	US 1969-867401	19691017 <--

PRIORITY APPLN. INFO.: NZ 1968-154193 19681018

AB Granules having an absorbent coating which absorbs agricultural chems. for release on application to the desired locus were prepared by using a H<sub>2</sub>O-soluble adhesive to bind an absorbent powder to the outside of granules of a solid inert material. For example, 270 lbs. of 22-35 mesh BBS calcite [13397-26-7] granules was blended with 10.2 lb 60% molasses solution in a ribbon blender. A damp sorbent powder mixture (64 lb) of micro-Cel E (hydrated synthetic **Ca silicate**) 32, china clay 13, and H<sub>2</sub>O 54% was added and the mixture was blended until all the damp dust was coated onto the core particles. The coated material was then dried in a rotary dryer at 140.deg.F to < 0.5% H<sub>2</sub>O content, and 100 lb of granules was sprayed with 11.3 lb 99% tech. parathion [56-38-2] and rotated in the dryer until free flowing.

L79 ANSWER 18 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1970:402991 HCAPLUS  
DOCUMENT NUMBER: 73:2991  
TITLE: Porous minerals as **carriers** for insecticidal  
dimethyl 2,2-dichlorovinyl phosphate  
INVENTOR(S): Gancberg, Abraham; Carpentier, Raymond; Paquet, Rene  
PATENT ASSIGNEE(S): UCB (Union Chimique-Chemische Bedrijven), S. A.  
SOURCE: Ger. Offen., 19 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1948438	A	19700409	DE 1969-1948438	19690925 <--
GB 1275558	A	19720524	GB 1968-45818	19680926 <--
NL 6914339	A	19700401	NL 1969-14339	19690922 <--
FR 2019496	A5	19700703	FR 1969-32503	19690923 <--
CH 497128	A	19701015	CH 1969-497128	19690924 <--
IL 33047	A1	19740114	IL 1969-33047	19690924 <--
BE 739355	A	19700325	BE 1969-739355	19690925 <--
AT 298143	B	19720425	AT 1969-9081	19690925 <--
DK 126013	B	19730604	DK 1969-5092	19690925 <--

PRIORITY APPLN. INFO.: GB 1968-45818 19680926

AB Porous plates of pumice, **Ca silicate** aluminate, or a amosite-**silica** agglomerate, treated with acid, were impregnated with Cl<sub>2</sub>C:CHOP(O)(OMe)<sub>2</sub> (I) and protected against moisture by addition of silicon oil or polyethylene. These preps. showed insecticidal activity, "knock-down" effects, against houseflies. Thus, 20 + 3.5 + 0.65 cm plates of amosite-**silica** agglomerate were treated with 100 g 5% HO<sub>2</sub>CCO<sub>2</sub>H, dried at 110-20°, and impregnated with a 68.4:31.6 mixture of I and tetrachlorodiphenyl and 1% methylphenylsilicon oil.

L79 ANSWER 19 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1967:463291 HCAPLUS  
DOCUMENT NUMBER: 67:63291  
TITLE: Adjuvants in the preparation of pesticides  
INVENTOR(S): Serrallach Julia, Jose A.  
SOURCE: Neth. Appl., 38 pp.  
CODEN: NAXXAN  
DOCUMENT TYPE: Patent  
LANGUAGE: Dutch  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6612525		19670307		<--
DE 1567138			DE	
ES 327783			ES	
FR 1516787			FR	
GB 1164321			GB	

PRIORITY APPLN. INFO.: ES 19650906  
ES 19660124

AB cf. **CA** 66: 1872t. The preps. of pesticide compns. containing surfactants and other additives to form liqs. or colloidal or semi-colloidal suspensions is described. The following compns. were

prepared (product, percent active material, percent surfactant, percent diluent, and ratio of components given): liquid concentrate (I), 70% dinocap, 30% nonylphenol polyethylene glycol (0.7-10.3 mole epoxy ethanes), -, 20:1-1:20; liquid concentrate (II), 70% malathion, 30% ethylan M.C., -, 20:1-1:20; liquid concentrate (III) 70% chlordane, 30% nonylphenol polyethylene glycol (9.5-14 mole epoxyethanes), -, 20:1-1:20; wettable powder, 30% I, -, 70% sawdust, 1:10-10:1; wettable powder, 30% II, -, 70% diatomaceous earth, 1:10-10:1; wettable powder, 30% III, -, 70% **kaolin**, 1:10-10:1; powder, 2% I, -, 20% S-78% talc., 1:200-1:10; powder, 10% II, -, 40% **kaolin**-50% talc, 1:100-1:4 and 20:1-1:20 resp., powder, 10% III, 10%, -, attapulgate-80% talc, 100-1:4 and 20:1-1:20 resp.; liquid concentrate, 40% I and 60% II (IV), ratio arbitrary; liquid concentrate, 40% dimethoate and 60% II (V), ratio arbitrary; liquid concentrate 60% II and 40% III (VI), ratio arbitrary; wettable powder, 40% IV, -, 60% synthetic **silicates**, 1:9-4:1; wettable powder, 70% V, -, 30% synthetic **silicates**, 1:9-4:1; wettable powder, 40% VI, -, 20% **kaolin**-40% diatomaceous earth, 1:9-4:1; powder, 10% IV, -, 60% **kaolin**-30% pyrophyllite, 1:100-1:4; powder, 15% V, -, 20% **kaolin**-65% talc, 1:100-1:4, powder, 5% VI, -, 95% talc, 1:100-1:4; liquid concentrate, 80% V and 20% Chlorfenson (VII), -, -, 100:1-3:1 (V: Chlorfenson); wettable powder, 40% VII, -, diatomaceous earth, 1:10-4:1 (diluent), powder, 20% VII, 26% synthetic **silicates**-60% talc, 1:100-1:3 (diluent).

L79 ANSWER 20 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1966:62886 HCAPLUS  
 DOCUMENT NUMBER: 64:62886  
 ORIGINAL REFERENCE NO.: 64:11796f-h  
 TITLE: Pesticidal formulation containing a complex of calcium carbonate and **silica**  
 INVENTOR(S): Nemec, Joseph W.; Nolan, Edward A., Jr.  
 PATENT ASSIGNEE(S): Rohm & Haas Co.  
 SOURCE: 4 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3194730		19650713	US	19570820 <--

AB A complex formed by the reaction of a diatomaceous **Ca silicate**, Micro-Cel, with CO<sub>2</sub> was used as a **carrier** for base-sensitive pesticides. CO<sub>2</sub> was charged into a mixture of 200 Micro-Cel 10 parts H<sub>2</sub>O in a 1-l. round bottom flask provided with an agitator until absorption of CO<sub>2</sub> ceased (1.5 hrs.). In 40 min. temperature rose from 25-70°. The free flowing product, 242 parts, was an intermol. complex of CaCO<sub>3</sub> and SiO<sub>2</sub> with the carbonate in aragonite structure. For Micro-Cel and the finished product the pH (aqueous slurry), g./cc., and particle size in  $\mu$  were 9.2, 0.35, 2.2 and 8.7, 0.52, 3.1, resp. Kelthane, Karathane, malathion, in the presence of the complex **carrier** and wetting and dispersing agents, were present in 90-95% of initial concentration after 1 hr. at 100°, 2 weeks at 60°, or 30-40 days at room temperature compared to 70% of initial concentration in absence of the carbonated **silicate**.

L79 ANSWER 21 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1965:406452 HCAPLUS  
 DOCUMENT NUMBER: 63:6452  
 ORIGINAL REFERENCE NO.: 63:1175b-c  
 TITLE: Gel fungicides, herbicides, and insecticides  
 PATENT ASSIGNEE(S): Fisons Pest Control Ltd.  
 SOURCE: 13 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 641214		19640612	BE	<--
FR 1426882			FR	
NL 301648			NL	

PRIORITY APPLN. INFO.: GB 19621213  
 AB Finely divided basic copper chloride 350 was added to a mixture of stearic acid (I) 60, NaOH 1.4, and H<sub>2</sub>O 800 parts which was stirred and heated to 65-70°. The mixture was stirred, cooled to 30°, 10 parts Me<sub>3</sub>N (II) and 100 parts H<sub>2</sub>O were added, and then allowed to stand until gelled. The gel was dispersed in H<sub>2</sub>O 1:2 and sprayed on banana plants where it adhered under 10 cm. of artificial rain. Cu chloride, I, and II, were replaced by atrazine, **Ca silicate**, Calflo E, dieldrin, DDT, N-(p-chlorophenyl)-N'-N'-dimethylurea, 4,5,6,7-tetrachloro-quinoxaline, palmitic or arachidic acid, and Bu<sub>2</sub>NMe, Pr<sub>3</sub>N, Bu<sub>2</sub>NH, resp., either sep. or in mixts.

L79 ANSWER 22 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1965:54773 HCAPLUS  
 DOCUMENT NUMBER: 62:54773  
 ORIGINAL REFERENCE NO.: 62:9720d-f  
 TITLE: Preparation of materials for protracted and regular reactivity of active substances  
 PATENT ASSIGNEE(S): CIBA Ltd.  
 SOURCE: 10 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6401097		19640812	NL	<--

PRIORITY APPLN. INFO.: CH 19630211  
 AB A continuous, even delivery of organic biol. active substances which are volatile, particularly biocides, is obtained by mixing the active substance with a solid which sublimates at room temperature and has a m.p. of 40-200° and an absorbent **carrier** material of fine porosity, such as SiO<sub>2</sub>, **silicate**, dried Kiesel acid gel, activated charcoal, sawdust, cellulose, wood chips, or fiber strips. The active substance is a liquid phosphoric ester or thiophosphoric ester, in particular dimethyl dichlorovinyl phosphate (DDVP) or its derivs. The solid may be naphthalene, a chlorobenzene, camphor and its derivs., urethan, acetylurethan, menthol, or trioxane. The concentration of active substance is 20-50% by weight, as calculated on total weight of the mixture of sublimate and absorbent. A mixture of 60 parts by weight naphthalene, 30 parts

DDVP, and 10 parts SiO<sub>2</sub> (Hisil) is warmed until the naphthalene has melted. The mixture is cooled, with stirring until crystallization occurs.

This is

poured into a cylinder and closed with metal foil until used. If fiber is used as absorbent (e.g., a roll of loosely woven cotton) it is soaked in the mixture of naphthalene and DDVP. It will unroll slowly to expose a new surface as the mixture evaporates from the outside of the roll.

L79 ANSWER 23 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1965:25259 HCAPLUS  
DOCUMENT NUMBER: 62:25259  
ORIGINAL REFERENCE NO.: 62:4555f-h,4556a-c  
TITLE: Hydrophobic siliceous insecticidal compositions  
INVENTOR(S): Marotta, Ralph  
PATENT ASSIGNEE(S): Monsanto Co.  
SOURCE: 9 pp.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3159536		19641201	US	19600422 <--

AB Partially or completely hydrophobic siliceous materials are themselves insecticidally more effective than inert dusts because the former retain their potency and low elec. conductivity under humid conditions. The bulk d. of

hydrophobic siliceous materials should be 0.2 g./cc. and the elec. conductivity not over 10<sup>-7</sup> mho/cm. Natural and synthetic SiO<sub>2</sub>, fume silicas, silica aerogels, and insol. metal silicates are prepared with Ba, Ca, Mg silicates, kaolinite, montmorillonite clays, talc, fuller's earth, bentonite, etc. Synthetic SiO<sub>2</sub>, precipitated SiO<sub>2</sub>, and silica aerogels can be rendered hydrophobic by coating with hydrophobic agents. The procedure comprises immersion wetting or treating silica with a hydrophobic agent dissolved in an organic solvent. It may be allowed to stand or be heated at 30-60°. The resulting material may be ground to below 20 µ. The silicas may also be sprayed with a hydrophobing agent or the material may be exposed to the vapors of monomethyltrichlorosilane, dimethyldichlorosilane, or trimethylmonochlorosilane. HCl formed by hydrolysis during treatment with chlorosilanes may be removed by air at 300° or neutralized with NH<sub>3</sub>. SiO<sub>2</sub> with a surface area of 100-250 sq. m./g. is coated with about 3 to 20% of a dimethyl silicone oil, also halosilanes and polysiloxanes. The dimethyl silicone oils are prepared by hydrolysis of dimethyldichlorosilane or cohydrolysis of the latter and trimethylmonochlorosilane or by the catalytic equilibration of a mixture of cyclic dimethylsiloxanes and hexamethyldisiloxane with a minor proportion of H<sub>2</sub>SO<sub>4</sub>. The particles have low elec. conductivity and pick up electrostatic charges. The hydrophobic materials may also be combined with anhydrous hydrostable, nondeliquescent salt(I), e.g., CaSO<sub>4</sub>, CuSO<sub>4</sub>, Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>, Na tripolyphosphate, Na metasilicate, etc., to provide insecticidal compns. which are effective over an extended period. Such compns. will not lose their insecticidal properties when exposed to humid conditions up to 3 days. It may be desirable to incorporate a physiol. active insecticide, e.g. DDT, with the siliceous powder for increased effect. Examples of the invention are given. At 56 g./min. Santocel (silica aerogel) of

15  $\mu$  size is fed into a grinder, during 25 min. and 100 g. dimethylsilicone oil is sprayed on at 4 g./min. The ground material is heated in an oven at 300° for 10 min. The resulting hydrophobe contains 7% by weight of the silicone and has the surface area, particle size and elec. conductivity described. Hydrophobic siliceous materials using aerogel,

fume **silica**, bentonite, and **kaolin** were insecticidally effective, had the proper phys. properties, and were unaffected by exposure to 100% humidity for 24 hrs., whereas, the untreated hydrophilic **silicas** were insecticidally effective when dry but lost this property after exposure as above. The compns. were evaluated for insecticidal properties on termite, roach, red flour beetle, and the two spotted spider mite. All hydrophobic materials, including those which had been exposed as described, killed 100% of the insects within 15 min. The untreated and exposed materials killed more than 20% of the insects.

L79 ANSWER 24 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1963:446632 HCAPLUS  
DOCUMENT NUMBER: 59:46632  
ORIGINAL REFERENCE NO.: 59:8381e-h,8382a  
TITLE: Reactive siliceous substance  
INVENTOR(S): Mays, R. K.; Bertorelli, O. L.  
PATENT ASSIGNEE(S): J. M. Huber Corp.  
SOURCE: 31 pp.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 624155		19630214	BE	<--
GB 1020282			GB	

PRIORITY APPLN. INFO.: US 19611103

AB This new substance, dried at 105°, contained 75-92% SiO<sub>2</sub>, ≥5% H<sub>2</sub>O, and <15% other oxides. At least 80% of the SiO<sub>2</sub> of the corresponding 39.6 g. SiO<sub>2</sub>/l. solution was rendered soluble in 30 min. in a 50° N NaOH solution. The composing elements were disposed in a laminar lattice with >20 micromoles SiOH/sq. m. plane BET (Brunauer-Emmett-Teller) sp. surface. The BET sp. surface was 300-500 sq. m./g., of which ≥60% was due to porosity in the particles. Pore volume was ≥36%, and pore diameter <0.002  $\mu$ , causing sorption of <0.0019 micromole. This was a paracryst. substance of high chemical reactivity, made up of leaflike, hexagonal particles 0.003-0.02  $\mu$  thick, 0.5-2  $\mu$  wide, and with 0.1-5  $\mu$  faces. It was used to prepare metallic **silicates** with using **alkali** metal, **alkaline** earth, Zn, and Pb oxides. It was used to absorb gases, liquids, odors, as humidity absorbent in salt, as support in accelerators and antioxidants for rubber, insecticides, and as charge in pigments. One kg. very finely divided **kaolin**, 55-60% of its particles <2  $\mu$  and 20-5% >5  $\mu$  with a BET sp. surface of 14.9 sq. m./g., was heated 24 hrs. at 550°, then cooled and dispersed in 1505 g. H<sub>2</sub>O containing 2.5 g. Na<sub>4</sub>P<sub>2</sub>O<sub>7</sub>. The **kaolin** contained 39.25 Al<sub>2</sub>O<sub>3</sub>, 45.12 SiO<sub>2</sub>, 0.71 Fe<sub>2</sub>O<sub>3</sub>, 0.89 TiO<sub>2</sub>, 0.49 CaO, 0.14 MgO, and 14.13% combined H<sub>2</sub>O. To the well-mixed dispersion, 1190 g. 93.19% H<sub>2</sub>SO<sub>4</sub> was rapidly added. The violent exothermic reaction raised the temperature to 105° in 2 min. Enough froth was formed to increase the original volume several times. H<sub>2</sub>O in 100-200-g. amts. was added several times. With return to normal volume, enough H<sub>2</sub>O was added to bring the acid concentration down to 30%, and the temperature dropped to 94°. The digestion was maintained 4 hrs. at this temperature



The dispersion was then cooled, H<sub>2</sub>O diluted, filtered, and the cake well washed to eliminate Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>. The cake was dried at 105° and pulverized. The substance contained 85.3% SiO<sub>2</sub>, 6.52% metallic oxides, and 8.18% H<sub>2</sub>O. The concentration of silanols was 135 micromoles/sq. m. plane sp.

surface. The acidity was 0.005 mol. equivalent/100 g. Up to 93.5% of its SiO<sub>2</sub> content dissolved in 50° N NaOH solution. The total BET sp. surface was 418, while the pore BET sp. surface was 380 sq. m./g. Oil absorption was 70 ml./100 g., while H<sub>2</sub>O absorption was 14.2% in 72% relative humidity. The humidity tolerance conferred on table salt was 0.58. The **kaolin** gave similar results when heated 2 hrs. at 700-900°.

L79 ANSWER 25 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1963:39716 HCAPLUS  
DOCUMENT NUMBER: 58:39716  
ORIGINAL REFERENCE NO.: 58:6718a-c  
TITLE: Pesticidal wettable powder and dust compositions  
INVENTOR(S): Wales, Harold E.  
PATENT ASSIGNEE(S): Allied Chemical Corp.  
SOURCE: 4 pp.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 908620		19621024	GB	19610329 <--
DE 1153936			DE	

GI For diagram(s), see printed CA Issue.

AB The compns. containing decachlorooctahydro-1,3,4-methano-2H-cyclobuta [cd] pentalen-2-one (I) were effective as against pests of citrus fruits, potatoes, apples, the imported fire ant, and a wide range of chewing insects. Hexachlorocyclopentadiene and SO<sub>3</sub> were stirred, and the product was hydrolyzed with a large volume of aqueous **alkaline** solution. The mixture was agitated at 90-5° for 0.5 hr., neutralized with H<sub>2</sub>SO<sub>4</sub>, the crystalline product filtered off or centrifuged, and ground. The product had to contain 3 or 4 moles H<sub>2</sub>O. It could **be** mixed with **carriers** such as **Mg** and **Al silicates**, **clays**, fuller's earth, gypsum or S. A typical composition was a mixture of 54.0% pesticide, 42.8 **Al silicate**, 1% Alttox 5050, 52% Polyfon H, and 0.2% Novonacco.

L79 ANSWER 26 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1962:418627 HCAPLUS  
DOCUMENT NUMBER: 57:18627  
ORIGINAL REFERENCE NO.: 57:3830i,3831a  
TITLE: Synthetic inorganic pulverulent **carriers** for pesticides  
INVENTOR(S): McKone, Colin E.; Eaton, John K.  
PATENT ASSIGNEE(S): "Shell" Research Ltd.  
SOURCE: 8 pp.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 897480		19620530	GB	19590320 <--
DE 1183307			DE	

AB Use of a small amount of a water-soluble **Ca** salt, e.g.  $\text{CaCl}_2(0.2-10\%)$ , in water-dispersible pesticide powders improves the stability of the dispersion. The **carrier** is a synthetic product, preferably hydrated **Ca silicate** or  $\text{SiO}_2$ , and preferably containing 45% more of the pesticide and 0.5-1% of a wetting agent. The components are thoroughly mixed and subjected to a hammermill.

L79 ANSWER 27 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1961:127110 HCAPLUS

DOCUMENT NUMBER: 55:127110

ORIGINAL REFERENCE NO.: 55:23920a-d

TITLE: Siliceous **calcium silicate** as an inert **carrier** for organic pesticides

INVENTOR(S): Vander Linden, Carl Rene; Blair, Laurence R.

PATENT ASSIGNEE(S): Johns-Manville Corp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 1080812		19600428	DE	<--
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AB By hydrothermal reaction, a siliceous **Ca silicate** is made from lime with diatomaceous earth, or with quartz or **silicic acid** gel in a  $\text{CaO}:\text{SiO}_2$  mole ratio of 0.67:1. For example, a mixture of  $2\text{CaO} \cdot 3\text{SiO}_2 \cdot 1-2.5\text{H}_2\text{O}$  and aqueous  $\text{SiO}_2$  is made from an aqueous **Ca silicate** and a siliceous material at  $182-332^\circ$  and can be used as inert **carrier**, the x-ray diagram of which shows 2 very strong lines at 3.12 and 4.12 and 1 weaker line at 8.34 Å. The  $2\text{CaO} \cdot 3\text{SiO}_3 \cdot 1-2.5\text{H}_2\text{O}$  is suitable as **carrier** either for tech. aldrin with a content of at least 77.9% 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-1,4,5,8-dimethanonaphthalene, or for dieldrin containing at least 85% 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4,5,8-dimethanonaphthalene, or for toxaphene (chlorinated camphene). Thus, a suspension (a) was made from finely crushed diatomaceous earth in  $\text{H}_2\text{O}$  with a content of 143 g. solids/l. and a suspension (b) from lime hydrate and  $\text{H}_2\text{O}$  containing 238 g. solids/l. Then 470 l. of (a), 3400 l.  $\text{H}_2\text{O}$ , and 175 l. of (b) were pumped into the reaction vessel, and the container was kept at  $232^\circ$  for 2 hrs. The final product (CS-55) had a bulk d. of 96 g./l. and a Gardner-Coleman adsorption of 453 kg./100 kg. solids. A 75% wettable DDT powder was made by dry mixing of 375 g. powdered DDT, 50 g. **kaolinite**, 60 g. **Ca silicate** hydrate (CS-55 from above), 7.5 g. **Na** lignosulfonate, and 7.5 g. **Na** N-methyl-N-oleoyltaurine. This was subjected first to tropical storage conditions and then to hard  $\text{H}_2\text{O}$ , etc.

L79 ANSWER 28 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1961:114096 HCAPLUS

DOCUMENT NUMBER: 55:114096

ORIGINAL REFERENCE NO.: 55:21467h-i

TITLE: **Carriers** for insecticides

INVENTOR(S): Nolan, Edward Albert, Jr.; Nemec, Joseph W.

PATENT ASSIGNEE(S): Rohn & Haas Co.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1079383		19600407	DE	<--
GB 895992			GB	

AB Diatomaceous **Ca silicate** (I) treated at 0-90° with CO<sub>2</sub> in the presence of H<sub>2</sub>O is suitable as a **carrier** for insecticides, especially those which are sensitive to **alkaline** conditions. Thus, 250 g. dry ice is added during 3 hrs. to 1000 parts I (H<sub>2</sub>O content 10% by weight). The mixture is stirred for 1 hr.

L79 ANSWER 29 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1961:78100 HCAPLUS

DOCUMENT NUMBER: 55:78100

ORIGINAL REFERENCE NO.: 55:14804d-i,14805a-b

TITLE: **Carriers** for insecticidal dusts and methods for their investigation

AUTHOR(S): Shogam, S. M.; Orlov, V. L.; Epshtein, T. B.; Sidorova, S. V.; Fen'kova, E. I.

SOURCE: Trudy, Nauch. Inst. po Udobren. i Insektofungisidam im. Ya. V. Samoilova (1959), (No. 165), 36-45

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB Properties investigated were: (1) Chemical constitution. In talcs, prophyllites, and other Al and **Mg silicates**, a fundamental indication of purity of **carriers** is the content of calcified HCl-insol. residue. Supplementary indications are content of HCl-soluble combined Fe, loss on calcification, pH of aqueous extract or **alkali** content, as titrated with HCl. The allowable Fe content is a function of the degree of dispersion of Fe compds. on the surface of the particles of the **carrier**. (2) The tolerance to disintegration in the presence of insecticides. This is determined by milling in a porcelain ball mill with a ratio of porcelain balls to weight of material of 3:1. The resulting degree of dispersion is determined from (a) particle size distribution found by air separation; (b) sp. surface, as determined by resistance to the passage of a current of air; (c) the residue on a Number 0090 sieve after wet or dry sieving. (3) The ability of the **carrier** to promote the disintegration of the insecticide. The **carrier** and the insecticide, e.g. DDT, are milled together under standard conditions, and the amount of DDT in the fraction containing particles of less than 22  $\mu$  diameter is determined (4) Phys. properties: (a) absorptive properties, i.e., porosity and hygroscopicity are determined by maintaining a sample in a desiccator above a solution of H<sub>2</sub>SO<sub>4</sub> of a concentration which corresponds to the relative humidity of the air at the given temperature, until constant weight is attained. (b) Wettability is determined by projection on a screen of the image of a drop of liquid (H<sub>2</sub>O) supported on a layer of the powdered material which has been scattered on a glass plate coated with a solution of Canada balsam. (c) Settling is determined by examination of the change in the distributed weight as determined by the free fall of the powder before and after it has supported a given load. (d) Permanence is determined by the amount of residue after a given quantity of dust supported on turning celluloid sheets has been subjected to the action of artificial rain and wind. (5) Microstructure of the **carrier** is investigated by optical and electron microscope in fractions of diams. A fibrous structure in talc is unfavorable to the effectiveness of the dust. (6) Thermal stabilities of 6% tech. DDT and of pure 4,4'-DDT, resp., were determined by heating at 120° for 2 hrs. in a

uniform air current and determination of the Cl ion content in EtOH solution of the

residue. Materials investigated were talcs, including those with a low content of calcified HCl-insol. residue and also talc substitutes: schists, **kaolin**, as such and with the addition of spindle oil, **clays**, and ashes from electrofilters. The least tendency to aggregation was observed in hydrophobic **carriers**. Addns. of talc to **kaolin** reduced the settling. Imported talc with a 93% HCl-insol. residue was most hydrophobic, and next came Spasskie pyrophyllite, followed by Shabrovski **clay**. Addition of 2% paraffin during the preparation of the dusts renders the surface of the **clay** hydrophobic. Even more hydrophobic was Spakksi talc with the addition of parafin. Talcs are the least hydrophobic, and schists and power station dusts have an intermediate position. The lowest thermal stability of DDT is found in those dusts prepared with kuvas **clay**, although the Fe<sub>2</sub>O<sub>3</sub> content did not exceed 4%. A preliminary calcification at 1000° of this material inactivated the effect of the Fe compds. on the thermal decomposition of DDT. The rate of powdering of insecticides with **carriers** depends on the initial degree of dispersion of the **carriers**. For each new form of filler the optimal degree of dispersion must **be** established. Hydrophilic **carriers** can **be** made hydrophobic by addition of 2% spindle oil (mark 3V) or a 3:1 mixture of paraffin and spindle oil.

L79 ANSWER 30 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1961:61440 HCAPLUS

DOCUMENT NUMBER: 55:61440

ORIGINAL REFERENCE NO.: 55:11744f-g

TITLE: Compatibility of mineral **carriers** and heptachlor

AUTHOR(S): Lhoste, Jean; Gerard, Jean L.

SOURCE: Proc. Intern. Congr. Crop Protect., 4th, Hamburg, 1957 (1960), 2, 1193-8

DOCUMENT TYPE: Journal

LANGUAGE: French

AB Some mineral **carriers** used in the preparation of dust or granular formulations catalyze the degradation of the insecticide. The following **carriers** were found to degrade heptachlor (in order of increasing catalytic activity): talc; **silicates**; **kaolin**. CaCO<sub>3</sub> had no effect on the insecticide. A bioassay method was used to show that diethylene glycol was effective in stabilizing the heptachlor formulations (cf. Malina, et al., **CA** 51, 4633e).

L79 ANSWER 31 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1961:56405 HCAPLUS

DOCUMENT NUMBER: 55:56405

ORIGINAL REFERENCE NO.: 55:10823i,10824a

TITLE: Low-solubility hydrated **calcium silicate**

INVENTOR(S): Vander Linden, Carl R.; Blair, Laurence R.

PATENT ASSIGNEE(S): Johns-Manville Corp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2966441		19601227	US	<--
FR 1330677			FR	

AB A low-solubility hydrated **Ca silicate** having the approx. formula  $2\text{CaO} \cdot 0.3\text{SiO}_2 \cdot 1-2.5 \text{H}_2\text{O}$  is produced by reaction of an aqueous slurry of lime and a siliceous material in a  $\text{CaO}:\text{SiO}_2$  mole ratio of 0.67:1. The mixture is held at  $232^\circ$  for 2 hrs. while agitating in a vented container. The x-ray diffraction pattern shows very strong lines  $d = 3.12$  A. and  $d = 4.12$  A., and a medium line at  $d = 8.34$  A. A thermal dehydration curve shows a 10% weight loss for a temperature increase of  $0-200^\circ$  and then a constant weight up to  $1000^\circ$ . The solubility is 39 p.p.m., which renders it practical for use as a **carrier** in the preparation of a wettable powder insecticide dispersion. The method for the preparation of a 75% wettable DDT powder is described.

L79 ANSWER 32 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1960:88065 HCAPLUS  
DOCUMENT NUMBER: 54:88065  
ORIGINAL REFERENCE NO.: 54:16729a-d  
TITLE: The physical study of mineral powders, serving as diluents of insecto-fungicides  
AUTHOR(S): Petrascu, Sever; Ilie, Maria  
CORPORATE SOURCE: Agronomic Research Inst., Bucharest, Rom.  
SOURCE: Acad. rep. populare Romine, Studii cercetari chim. (1957), 5, 389-94  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

AB cf. Wilcoxon, et al., **CA** 26, 1377, Borchers, et al., **CA** 29, 82104. The phys. properties of a series of mineral powders (4 types of talc as **Mg silicates**, 2 types of bentonite and 2 types of **kaolin Al silicates**, 2 types of diatomaceous earth and colloidal alumina as oxides, and chalk as carbonates), employed as diluents of insecticides and fungicides have been studied. Measurement of the gravimetric consts. which influence dispersibility, i.e.  $d$ . (by means of a picnometer, toluene employed as auxiliary liquid), volumetric weight,  $\gamma$ , the apparent sp. weight at free pouring (10-15 detns. in a 3-cm. diameter and 6-cm. high glass cylinder); porosity,  $V_i\% = 100(1-\gamma/d)$ , indicated an inverse proportionality between the volumetric weight and the porosity, with the exception of the 2 diatomaceous earth samples. Measurement of the talus angle  $\alpha$  (powder being poured in the center of a disk 10 cm. in. diameter, measuring the height of the cones -  $\tan \alpha = 1/10$ ) indicates no correlation between it and the 3 phys. consts. determined previously. Granulometric studies of the powders have been performed by the microscopic (measuring directly the diameter of 1000-2000 granules in the microscope field at 100 enlargement), sedimentation (aqueous suspension), and screening (through a series of standard sieves) methods. The results obtained by microscopy and sedimentation were in good accord in order of magnitude, yet the first method gave a numerical dispersion. Screening results do not agree with the other results, which confirms the unsuitability of this method for the analysis of fine powders.

L79 ANSWER 33 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1956:62185 HCAPLUS  
DOCUMENT NUMBER: 50:62185  
ORIGINAL REFERENCE NO.: 50:11637b-e  
TITLE: Finely dispersed **silicates** of low density  
INVENTOR(S): Kloepfer, Harry; Frey, Artur; Weitbrecht, Gerhard; Kohl, Hans  
PATENT ASSIGNEE(S): Deutsche Gold- und Silber-Scheideanstalt vorm. Roessler  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2742345		19560417	US	

AB Aqueous suspensions of natural **silicates**, e.g. **clays** of the **kaolin** type or bentonites, are heated under pressure in the presence of  $\text{Ca(OH)}_2$ . **Kaolins** or bentonites are transformed into products of extremely fine-grained nature and of considerable surface development. The  $\text{Ca(OH)}_2$  should **be** added in an amount of 15-60% of the weight of the **silicate** treated, preferably 20-40% calculated as  $\text{CaO}$ . Treatment takes place in an autoclave at 150-250° under steam pressure. At 200°, the treatment takes a few hrs., at lower temps., the time is lengthened. Even lower-d. products can **be** obtained when the products are subjected to acid extraction. The acidity should not **be** lower than pH 4-5. These powders are especially useful for compounding rubber for abrasion resistance. For example, 200 g. bentonite, 60 g. slaked lime, and 1500 ml.  $\text{H}_2\text{O}$  were thoroughly mixed in a ball mill. The suspension was then introduced into an autoclave, constantly stirred, and heated to 180° for 3 hrs. The reaction product was filtered and dried at >100°. The bulk d. of the product was 120 g./l. as compared with 1138 g./l. for the original bentonite. Of the lime present, 5% was not bound and could **be** removed by fractional extraction with dilute  $\text{HCl}$ . The products are said to **be** useful as thickeners for aqueous and nonaq. liquids, as elastomer fillers, as components in insecticidal dusts, as milling aids, as decolorizers, as suspending agents in paints, as **carriers** for drugs, as stabilizers in ceramics, and also as mild abrasives and polishing agents for optical glass and in toothpastes.

L79 ANSWER 34 OF 36 HCAPLUS {COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1948:26133 HCAPLUS  
DOCUMENT NUMBER: 42:26133  
ORIGINAL REFERENCE NO.: 42:5603h-i,5604a-c  
TITLE: Dispersing, wetting, and adhesive materials for plant protection  
AUTHOR(S): Burgdorf, K.  
SOURCE: Reichsamt Wirtschaftsausbau Chem. Ber. (1942), PB 52021, 1145-53  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

AB A review of used and approved materials. As **carriers** for insecticidal and fungicidal dusts are mentioned lime, gypsum, chalk, asbestos, talc, **clay**, **kaolin**, and diatomaceous earth. Talc has the best adhesive qualities. A certain water content is important in **clays** which are used as **carriers**. Size and form of the **carrier** particles, and their elec. charges are also important. Colloidal oxides, **silicates**, and high-mol. hydrophile materials facilitate adhesion of dusts to dew-moistened plant surfaces. More research on the adhesiveness of dust **carrier** materials would **be** desirable. Adhesives for spray mixts. include: lime, **Na silicate**, starch, molasses, sugar, glue; also gelatin, casein, albumin, and their **Ca** salts; high-mol. carboxylic acids and their salts (particularly **alkaline**, **Ca**, and **Pb** salts); resin, colophony, tall oil, naphthenic acids and their salts; phosphatides, pectin, alginic acid and their salts. Interesting, but to **be** used in sprays with caution, are soaps of drying oils, or latex and **Na** salt of cholic acid, which form a continuous coating, or a waterproof coating obtained by means of

melamine-HCHO condensate and acid-hardening materials. Other materials mentioned include: Zn oxide; Ti oxide; dextrin; amyloextrin; erythritol; mannitol; glycerol; starch xanthate; cellulose ether; cellulose glycol ether; cellulose spent liquor; glutin; tannic acid; various sulfo oleates; condensation products of oleic acid, naphthalene, and H<sub>2</sub>SO<sub>4</sub>. Various anion-active and cation-active synthetic wetting and dispersing agents are considered.

L79 ANSWER 35 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1947:28251 HCAPLUS

DOCUMENT NUMBER: 41:28251

ORIGINAL REFERENCE NO.: 41:5674h-i,5675a

TITLE: Classification of insecticide dust diluents and **carriers**

AUTHOR(S): Watkins, Thomas C.; Norton, L. B.

CORPORATE SOURCE: Cornell Univ., Ithaca, NY

SOURCE: Journal of Economic Entomology (1947), 40, 211-14

CODEN: JEENAI; ISSN: 0022-0493

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB A classification of the various diluents and **carriers** used in the preparation of insecticidal dusts is proposed by W. and N., as follows: (I) Botanical flours (soybean flour; tobacco flour; walnut shell flour; wheat flour; wood flour). (II) Minerals: (1) elements (S); (2) oxides: silicon (tripolite, diatomite); **calcium** (Ca lime, **Mg** lime); (3) carbonates (calcite, dolomite); (4) sulfates (gypsum); (5) **silicates** (mica, talc, pyrophyllite, **clays** (montmorillonite group (montmorillonite, saponite, nontronite, beidellite); **kaolinite** group (**kaolinite**, nacrite, dickite, anauxite); attapulgite group (attapulgite, sepiolite)); phosphates (apatite), indeterminate (pumice). Botanical flours have restricted use. Most diluents used today are of mineral origin. Dana's classification (C.A. 26, 4777) has been modified and simplified in preparing the above classification. The minerals classed under the **silicates** comprise most of the insecticidal diluents. Each group is discussed with respect to its use in dusts

L79 ANSWER 36 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1930:10534 HCAPLUS

DOCUMENT NUMBER: 24:10534

ORIGINAL REFERENCE NO.: 24:1177a-b

TITLE: Solidifying calcium nitrate and other substances from solutions

PATENT ASSIGNEE(S): I. G. Farbenindustrie AG

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 313652		19280316	GB	<--

AB **Ca(NO<sub>3</sub>)<sub>2</sub>** or other substances for use as fertilizers or for other purposes are obtained in globular or like form by spraying drops of a solution or melt into a cooling liquid, which is rotated about a vertical axis within it so as to obtain a relatively long cooling path with a small quantity of the liquid. A fine powder such as **clay**, gypsum, chalk, kieselguhr or **Mg silicate** may be suspended in the cooling liquid to form a non-adhesive coating of the

solidified particles, or substances such as  $\text{Ba}(\text{OH})_2$ , paraffin oil or wax may be added.  $\text{CCl}_4$  may be used as a cooling liquid with  $\text{Ca}(\text{NO}_3)_2$  and various details of procedure are given.

=> FIL STNGUIDE



*Inventor Search*

*Chlorfenapyr Structure*

*1/4*

Levy 09/282,857 Inv. & Cmpd.

03/18/2004

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DICTIONARY FILE UPDATES: 17 MAR 2004 HIGHEST RN 664302-53-8

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LAST RELOADED: Mar 12, 2004 (20040312/UP).

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L146 6 SEA FILE=HCAPLUS ABB=ON PLU=ON "KIMLER JOSEPH"/AU

=> d ibib abs 1146 1-6

L146 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2002:353979 HCAPLUS  
DOCUMENT NUMBER: 136:336653  
TITLE: Sprayable insecticidal chlorfenapyr composition  
containing an abrasive  
INVENTOR(S): Kimler, Joseph  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 6 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002054898	A1	20020509	US 1999-282857	19990331
PRIORITY APPLN. INFO.:			US 1998-80117P	P 19980331

AB A sprayable insecticidal composition having significantly increased efficacy comprises an effective amount of an insecticide, such as chlorfenapyr; an abrasive, such as an alkaline earth metal silicate, an alkali metal silicate, silica, kaolin clay or a mixture thereof; a low level of a surfactant; an inert carrier, such as kaolin clay; and, optionally, a film-forming inhibitor, such as calcium chloride.

L146 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2000:23636 HCAPLUS  
DOCUMENT NUMBER: 132:60506  
TITLE: Ureido-free poison baits containing cellulose for termite control  
INVENTOR(S): Kimler, Joseph; Colbert, Donald Robert  
PATENT ASSIGNEE(S): American Cyanamid Co., USA  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2000007516 A2 20000111 JP 1999-163578 19990610  
PRIORITY APPLN. INFO.: US 1998-89511P P 19980616  
AB The baits, useful as wood preservatives, contain termiticides, 88-99%  
cellulose sources selected from birch, (partially) decayed birch,  
cellulose derivs., and/or purified cellulose, and optionally approx.  
0.5-2.0% agar. A bait containing crystalline cellulose 5.0, decayed birch wood  
93.7, agar 1.0, and hydramethylnon 0.3% showed good palatability to  
termites (*Reticulitermes hesperus*).

L146 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:490064 HCAPLUS  
DOCUMENT NUMBER: 122:233358  
TITLE: Water-dispersible granular compositions comprising  
dinitroaniline and imidazolinone herbicides with  
montmorillonite carriers.  
INVENTOR(S): **Kimler, Joseph**; Kubisch, Robert  
PATENT ASSIGNEE(S): American Cyanamid Co., USA  
SOURCE: U.S., 6 pp. Cont.-in-part of U.S.5, 296, 450.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5393731	A	19950228	US 1993-164169	19931208
US 5294594	A	19940315	US 1992-996221	19921223
US 5296450	A	19940322	US 1992-996412	19921223
JP 07252107	A2	19951003	JP 1994-321203	19941201
CA 2137412	AA	19950609	CA 1994-2137412	19941206
IL 111895	A1	20011031	IL 1994-111895	19941206
AU 9480281	A1	19950615	AU 1994-80281	19941207
HU 69066	A2	19950828	HU 1994-3504	19941207
BR 9404897	A	19950808	BR 1994-4897	19941208

PRIORITY APPLN. INFO.:  
US 1992-996221 A2 19921223  
US 1992-996412 A2 19921223  
US 1993-164169 A 19931208

AB The invention relates to water dispersible granular compns. comprising a  
dinitroaniline herbicide (pendimethalin, trifluralin, isopropalin,  
ethalfluralin, benfluralin, oryzalin) and an imidazolinone herbicide  
(imazaquin, imazethapyr, imazamethapyr, imazapyr) with a montmorillonite  
carrier, wetting agent, suspension agent and dispersion agent. The  
dispersion agent comprises a base and a water-swellaable polymer, such as  
croscarmellose Na and microcryst. cellulose. Such compns. are storage  
stable and possess desirable dispersion properties.

L146 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:248770 HCAPLUS  
DOCUMENT NUMBER: 122:25883  
TITLE: Herbicidal extruded granules.  
INVENTOR(S): Johnson, Jerry Lee; **Kimler, Joseph**  
PATENT ASSIGNEE(S): American Cyanamid Co., USA  
SOURCE: Eur. Pat. Appl., 8 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 623281	A1	19941109	EP 1994-105286	19940405
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
CZ 285958	B6	19991215	CZ 1994-941	19940419
JP 07048211	A2	19950221	JP 1994-109051	19940425
CA 2122235	AA	19941029	CA 1994-2122235	19940426
ZA 9402907	A	19950103	ZA 1994-2907	19940426
AU 9460708	A1	19941103	AU 1994-60708	19940427
AU 666436	B2	19960208		
BR 9401619	A	19941122	BR 1994-1619	19940427
CN 1096411	A	19941221	CN 1994-104836	19940427
PL 173810	B1	19980529	PL 1994-303227	19940427
RO 115928	B1	20000830	RO 1994-725	19940427
SK 279407	B6	19981104	SK 1994-492	19940428
US 5476835	A	19951219	US 1994-270983	19940705

## PRIORITY APPLN. INFO.:

US 1993-54764 A 19930428

AB The composition comprises an active ingredient, such as an imidazolinone herbicide, an inert carrier, a wetting agent, and a dispersing agent. Thus, a composition comprised: imazaquin (95%) 77.1, Morwet EFN 1.0., Morwet D-425 3.0, and kaolin clay 18.9% weight/weight. The compns. are dust free, storage stable, readily dispersible, and environmentally compatible.

L146 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:429280 HCAPLUS

DOCUMENT NUMBER: 121:29280

TITLE: Water dispersible granular herbicidal compositions comprising dinitroaniline herbicides, montmorillonite carrier, and a base

INVENTOR(S): Kimler, Joseph; Kubisch, Robert

PATENT ASSIGNEE(S): American Cyanamid Co., USA

SOURCE: U.S., 5 pp.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5296450	A	19940322	US 1992-996412	19921223
US 5393731	A	19950228	US 1993-164169	19931208
CZ 284787	B6	19990317	CZ 1993-2678	19931208
SK 280902	B6	20000912	SK 1993-1430	19931215
JP 06199610	A2	19940719	JP 1993-344580	19931220
JP 3360293	B2	20021224		
IL 108102	A1	19970930	IL 1993-108102	19931220
CA 2112040	AA	19940624	CA 1993-2112040	19931221
BR 9305193	A	19940628	BR 1993-5193	19931222
AU 9352643	A1	19940707	AU 1993-52643	19931222
AU 668779	B2	19960516		
ZA 9309630	A	19940815	ZA 1993-9630	19931222
HU 69763	A2	19950928	HU 1993-3719	19931222
HU 214222	B	19980128		
RU 2137366	C1	19990920	RU 1993-57731	19931222
EP 604906	A1	19940706	EP 1993-120784	19931223
EP 604906	B1	19990526		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
AT 180383	E	19990615	AT 1993-120784	19931223
ES 2132169	T3	19990816	ES 1993-120784	19931223

HK 1013217 A1 20000505 HK 1998-114618 19981222  
PRIORITY APPLN. INFO.: US 1992-996221 A2 19921223  
US 1992-996412 A2 19921223  
AB Water-dispersible granular compns. comprising a dinitroaniline herbicide  
and a dispersion enhancing agent are prepared by a process described. Such  
compns. are storage stable and contain desirable dispersion properties.

L146 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1994:238290 HCAPLUS  
DOCUMENT NUMBER: 120:238290  
TITLE: Water-dispersible granular herbicidal compositions  
comprising dinitroaniline herbicides, montmorillonite  
carrier and water-swellable polymer.  
INVENTOR(S): Kimler, Joseph; Kubisch, Robert  
PATENT ASSIGNEE(S): American Cyanamid Co., USA  
SOURCE: U.S., 5 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5294594	A	19940315	US 1992-996221	19921223
US 5393731	A	19950228	US 1993-164169	19931208

PRIORITY APPLN. INFO.: US 1992-996221 A2 19921223  
US 1992-996412 A2 19921223  
AB Storage-stable title compns. comprise a dinitroaniline herbicide, such as  
pendimethalin, a dispersion-enhancing agent and a carrier. A suitable  
dispersion-enhancing agent is 1-ethenyl-2-pyrrolidinone homopolymer.

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L147 2 SEA FILE=BIOSIS ABB=ON PLU=ON "KIMLER J"/AU

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YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L147 ANSWER 1 OF 2 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
ACCESSION NUMBER: 2002:32909 BIOSIS  
DOCUMENT NUMBER: PREV200200032909  
TITLE: Herbicidal imidazolinone extruded granular compositions.  
AUTHOR(S): Johnson, J. L. [Inventor]; Kimler, J. [Inventor]  
CORPORATE SOURCE: Lawrenceville, N.J., USA  
ASSIGNEE: AMERICAN CYANAMID COMPANY  
PATENT INFORMATION: US 5476835 Dec. 19, 1995  
SOURCE: Official Gazette of the United States Patent and Trademark  
Office Patents, (Dec. 19, 1995) Vol. 1181, No. 3, pp. 1866.  
print.  
CODEN: OGUPE7. ISSN: 0098-1133.  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
ENTRY DATE: Entered STN: 26 Dec 2001  
Last Updated on STN: 25 Feb 2002